

# Powercast Questions and Answers

*A guide to the most commonly asked questions about Powercast and wireless power.*

## Who is Powercast?

Powercast Corporation is a leading innovator of wireless power designed for a new class of defense, industrial and commercial electronics. Powercast has spent the last five years developing core technology and proof of concept products, for the purpose of supplying safe and controllable “power delivery systems” to an emerging group of low power devices such as wireless sensors, building automation tools, low wattage LED’s and so on.

## What is Powercast’s core technology?

- Powerharvester Module™ RF energy receiver for far-field or ambient solutions
- Powercaster Module™ RF energy transmitter for far-field RF transmission
- WunderLites™ Christmas Ornament Lit Frames or complete ornament sets
- Lifetime Power™ Evaluation and Development Kits
- Lifetime Power™ battery/capacitor boards and demonstration devices

## What makes Powercast’s core technology unique?

- Power Over Distance: deliver milliwatts of power over meters in length
- Any-to-Any: connect multiple devices to create an energy distribution network
- One-to-Many: power many and/or dissimilar devices from a single energy source
- Renewable: extend the life of rechargeable batteries to reduce waste

## What are the best use case scenarios for Powercast’s core technology?

Powercast is dedicated to providing far-field wireless power solutions with unmatched market expertise in wireless smart sensors, battery recharging, low wattage lighting, and defense applications.

## What services do you offer?

Our fee-based professional services include: RF antenna design, power system design, FCC consulting services, engineer/designer RF wireless power certification program (1 week course), low volume prototype design, contract manufacturing of the power distribution system. Contact Powercast for a quote.

## Can your technology charge cell phones, laptops, t.v’s?

Powercast’s technology could charge cell phones, laptops, portable devices, ect., however, we are currently focused on powering 10 to 50 milliwatts over 10 to 20 feet, and 100 microwatts over 50 feet. Powercast has the ability to be easily integrated with trickle charge applications in conjunction with rechargeable batteries, capacitors and proprietary charging circuitry to provide surprising energy yields. This ability can easily power a wide-range of sensors, switches, lighting and processor based devices.

## Who are your announced collaborations?

TACH Technologies, Firetek, Gill Industries, MeadWestVaco, Lighting Sciences Group, Pure Energy Battery Corporation, Department of Defense, Department of Energy, various intelligence organizations, Government primary contractors. *(as of 2/2009)*



## Online Resources:

Powercast offers the a variety online resources to support the growing community of engineers focused on wireless power.

- [www.powercastco.com](http://www.powercastco.com)
- [www.powercastco.com/forum](http://www.powercastco.com/forum)
- [www.powercastcostore.com](http://www.powercastcostore.com)
- [www.lifetimepowerkit.com](http://www.lifetimepowerkit.com)
- [www.rfwirelessensors.com](http://www.rfwirelessensors.com)
- [www.rfwirelesspower.com](http://www.rfwirelesspower.com)

## Which organizations are an ideal collaboration?

- Wireless Sensor Manufacturers using Power Assist RFID, RTLS tags, ZigBee™ and ULP-WiFi Wireless Sensor Networks.
- Low Wattage Lighting Manufacturers developing novelty, decor and safety lighting.
- Portable Electronic OEM’s seeking recharging solutions for multiple devices, including charge box or charge station devices.
- Alternative Energy Groups interested in using RF Wireless Power as an ecological battery replacement solution.
- Building material companies looking to build a product line of lit tiles, sinks or floor panels for building applications.

# Lifetime Power™ Evaluation and Development Kit Q &A:

## What is the Dev Kit?

The Lifetime Power Evaluation and Development Kit is a way for engineers, developers, product designers and students to experience and self-discover Powercast's RF wireless power technology. The kit is a full laboratory package that can be rapidly integrated into any prototype development project requiring RF wireless power.

The kit includes a wide range of capabilities, such as:

- Providing RF wireless power at line rate, charge & fire, and recharging batteries.
- Demonstrations such as powering motors, lights, buzzers and sensors.
- Prototyping with different shapes, sizes and types of RF antennas.

## What is the frequency?

Powercast's harvesting technology is frequency agnostic. We have the ability to tune the frequency to your needs. Today, we use the ISM (industry, science and medical) bandwidths of 900 MHz, 2.4 GHz and 5.8 GHz. But we could use any RF energy, regardless of frequency. Of course, this would be a customer custom configuration.

## Will the frequency work with my project?

The kit is designed for experimentation. There are many products out there that Powercast technology could potentially be a great fit. You can always refer to the FRIIS Equation Calculator to see if our technology is a good fit.

## How much is the kit?

Regular price is \$1,995.

To buy the kit: [www.powercastcostore.com](http://www.powercastcostore.com)

## I don't need the entire kit, can I just purchase parts?

Additional parts will be available online for those who have purchased the development kit.

## How do I pay?

We are able to accept credit cards through our online order site at [www.powercastcostore.com](http://www.powercastcostore.com). We can also process a purchase order over the phone by calling 800.963.6538 and pressing "4" for sales.

## What do I do after I buy?

The Dev Kit is really a designer or engineering tool that allows you to self-discover RF wireless power on your own terms. Much like buying a textbook, it provides you with the answers to most of the key questions relating to building RF power distribution systems. Furthermore, the antenna modules allow you to rapidly prototype a product.

Lastly, Powercast is committed to helping you with your efforts. We offer fee based professional services, free technology forums and blogs, and we have authorized Powercast Design Centers to help you design a commercial product.

## Can I ship outside the US?

The Lifetime Power Evaluation and Development Kit has only been approved for use in the United States. Additional terms and conditions may apply for international customers.

## What support is included?

- Consulting and Professional Services Group will assist you in design, engineering or certification of any RF Wireless Power application.
- Certified Powercast Design Center partnership with Advanced Manufacturing Technology provides a unified collaborative environment for a streamlined approach to the product development process.
- Business Development Professionals ready to provide personalized demonstrations of Powercast's RF Wireless Technology capabilities.
- Interactive Forums for RF Wireless Engineers to openly discuss successes and challenges with their peers.
- Educational and Standardization Efforts through the involvement in related events and association memberships.

## I tried to order online, but it didn't work.

We will be happy to walk through the order process over the phone by calling 800.963.6538 and pressing "4" for sales. Or, we have the ability to process the order through a purchase order.